

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) ~~A method of transmitting an authentication message in a switching Fabric, comprising:~~

~~determining that an~~ ascertaining if the authentication message has a length that exceeds the message length supported by a target entity in a fibre channel Fabric; ~~and either:~~

~~fragmenting the authentication message into message fragments including a first message fragment and a second message fragment; if the length of the message exceeds the message length supported by the target entity; and sequentially sending the message fragments one by one across the Fabric; or~~

generating a first Extended Link Services (ELS) message including the first message fragment, wherein the first ELS message is associated with a first exchange;

generating a second ELS message including the second message fragment, wherein the second ELS message is associated with a second exchange;

sending the message fragments including the first message fragment and the second message fragment to authentication message in its entirety if the length of the authentication message is less than the message length supported by the target entity, wherein the second message fragment is sent after the first exchange is complete.

2. (Original) The method of claim 1, wherein fragmenting the authentication message into message fragments further comprises setting a fragmentation bit in each message fragment except the last message fragment.

3. (Original) The method of claim 2, wherein the setting of the fragmentation bit of one of the message fragments indicates that a subsequent message fragment is to be sent.

4. (Original) The method of claim 1, wherein fragmenting the authentication message into message fragments further comprises resetting a fragmentation bit in the last message fragment of the authentication message.

5. (Original) The method of claim 1, wherein fragmenting the authentication message into message fragments further comprises labeling each message fragment with a Sequence Number.

6. (Original) The method of claim 4, wherein the resetting of the fragmentation bit in the fragmentation field of the last message fragment indicates that no subsequent message fragments will follow the last message fragment.

7. (Original) The method of claim 1, wherein the message comprises, but is not limited to, authentication information and contains one or more of the following fields:
- a field that identifies the authentication message as an authentication message; and
 - an authentication command code field that identifies the particular authentication message of an authentication protocol.
8. (Original) The method of claim 6, wherein the authentication protocol comprises but is not limited to the following protocols: DH-CHAP, SRP, or FCAP.
9. (Original) The method of claim 1, wherein the target entity is an end device in the Fabric.
10. (Original) The method of claim 1, wherein the target entity is the Fabric.
11. (Original) The method of claim 6, wherein the target entity either accepts or discards the message fragment based on the value of the Sequence Number.
- 12-23. (Canceled)
24. (New) An apparatus, comprising:
- a processor operable to determining that an authentication message has a length that exceeds the message length supported by a target entity in a fibre channel Fabric, fragment the authentication message into message fragments including a first message fragment and a second message fragment, and generate a first Extended Link Services (ELS) message including the first message fragment and a second ELS message including the second message fragment, wherein the first ELS message is associated with a first exchange and the second ELS message is associated with a second exchange;
 - an interface connected to the processor, the interface operable to send the message fragments including the first message fragment and the second message fragment to the target entity, wherein the second message fragment is sent after the first exchange is complete.
25. (New) The apparatus of claim 24, wherein the processor sets a fragmentation bit in each message fragment except the last message fragment.
26. (New) The apparatus of claim 25, wherein the fragmentation bit is used to indicate that a subsequent message fragment is to be sent by the initiating entity.
27. (New) The apparatus of claim 24, wherein a fragmentation bit in the last message fragment of the authentication message is set.
28. (New) The apparatus of claim 24, wherein each message fragment is labeled with a Sequence Number.
29. (New) A system, comprising:

means for determining that an authentication message has a length that exceeds the message length supported by a target entity in a fibre channel Fabric;

means for fragmenting the authentication message into message fragments including a first message fragment and a second message fragment;

means for generating a first Extended Link Services (ELS) message including the first message fragment, wherein the first ELS message is associated with a first exchange;

means for generating a second ELS message including the second message fragment, wherein the second ELS message is associated with a second exchange;

means for sending the message fragments including the first message fragment and the second message fragment to the target entity, wherein the second message fragment is sent after the first exchange is complete.

30. (New) The system of claim 29, wherein fragmenting the authentication message into message fragments further comprises setting a fragmentation bit in each message fragment except the last message fragment.

31. (New) The system of claim 30, wherein the setting of the fragmentation bit of one of the message fragments indicates that a subsequent message fragment is to be sent.

32. (New) The system of claim 29, wherein fragmenting the authentication message into message fragments further comprises resetting a fragmentation bit in the last message fragment of the authentication message.

33. (New) The system of claim 29, wherein fragmenting the authentication message into message fragments further comprises labeling each message fragment with a Sequence Number.

34. (New) The system of claim 32, wherein the resetting of the fragmentation bit in the fragmentation field of the last message fragment indicates that no subsequent message fragments will follow the last message fragment.

35. (New) The system of claim 29, wherein the message comprises, but is not limited to, authentication information and contains one or more of the following fields:

a field that identifies the authentication message as an authentication message; and

an authentication command code field that identifies the particular authentication message of an authentication protocol.